## Message

From: Keller, Lynn [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=08038B86D66A47D3AACA8BEE1A63A5A7-LKELLER]

**Sent**: 6/25/2018 3:27:36 PM

To: MacDonald, Alex@Waterboards [Alex.MacDonald@waterboards.ca.gov]

Subject: Re: Request for Aerojet Groundwater Data

Thank you for taking care of this request (twice), Alex!

Lynn Keller Remedial Project Manager EPA Region 9 415-947-4162

On Jun 24, 2018, at 05:25, MacDonald, Alex@Waterboards < Alex.MacDonald@waterboards.ca.gov > wrote:

Mr. Richardson: Here is the e-mail with the information that you requested.

Ale MacDonald

From: MacDonald, Alex@Waterboards Sent: Friday, May 25, 2018 9:18 AM

To: rcr@rcresearch.us
Cc: 'keller.lynn@epa.gov'

Subject: Request for Aerojet Groundwater Data

Mr. Richardson: You sent an information request to USEPA regrading groundwater data for the Aerojet project, specifically asking for data from the 95670 area and also Area 40, which is outside of the 95670 Zip Code. Can you provide additional detail on the type of data you are looking for. This is a big undertaking to provide all of the data generated for the Aerojet project within the 95670 Zip Code and it would be good to focus the request. I can provide you with a link to various groundwater monitor reports that provide data gathered during the past couple of years for the entire Aerojet project. It may be best to look at the plume maps with the data posted on them. These figures include data for TCE, perchlorate and n-nitrosodimethylamine – the three main contaminants within the plumes.

This link takes you to the page with the last version of the plume maps for Spring and Fall 2017

http://geotracker.waterboards.ca.gov/view\_documents?global\_id=SL185992958&document\_id=5956476

Here is a link to the final remedial investigation report for Area 40:

http://geotracker.waterboards.ca.gov/view\_documents?global\_id=T10000002515&document\_id=6118746

As far as in-situ groundwater remediation for TCE, Aerojet has performed an number of pilot test and extended tests looking at in-situ groundwater remediation of perchlorate and TCE. These all showed a high potential for success. One long term pilot test is on-going at Area 40 and consists of a iron-filing wall across a portion of the plume. Aerojet is looking at extending that wall across the width of the plume as part of the Area 40 remedy. In-situ groundwater remediation is viable and used at quite a few sites within California. I was a member of the Interstate Technical Regulatory Council Bioremediation Team that produced a number of documents on the subject. You can feel assured that we have evaluate the use for Area 40 and it is an option for source areas 36B and 37B as a follow-on after excavation if the excavation does not sufficiently reduce the TCE concentrations.

Feel free to contact me via the information below.

Alexander MacDonald

Senior Engineer

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